REMARKS

This is in response to the Office Action mailed November 24, 2006. Reconsideration of this application is respectfully requested in view of this amendment and remarks that follow.

STATUS OF CLAIMS

Claims 1-19 are pending.

Claims 1-19 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. 6,085,186 (Christianson et al.).

OVERVIEW OF CLAIMED INVENTION

The presently claimed invention relates to automatic routing and rank configuration for search queries in information retrieval systems, for example in a meta-search of web pages. In a non-limiting example, queries are first divided into types, for example navigational or informational. Navigational queries relate to finding a particular page, whereas informational queries relate to finding specific information wherever it is located, and queries may also be classified into other types. Ranking parameters are then chosen for a number of search engines according to the query type. Next, routing to indices available on each search engine is selected. Separate indices may be available, for example, for 'anchor' terms in a page and for the page itself, but other types of indices may also be available. The search results for each search engine are then combined and displayed in a web browser, for example.

In the Claims

REJECTIONS UNDER 35 U.S.C. §102(b)

Claims 1-19 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. 6,085,186 (Christianson et al.), hereafter Christianson. Applicant respectfully disagrees with the Examiner that the claims are taught by the cited art. The Manual for Patenting Examining Procedure (MPEP) §2131 clearly sets forth the standard for rejecting a claim under 35 U.S.C. §102(b). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (MPEP §2131, quoting Verdegaal Bros. v. Union Oil Co. of California 2 USPQ2d 1051, 1053 (Fed Cir. 1987)). Applicants respectfully assert, and as will be shown in the arguments below, that Christianson fails to teach the claimed invention as required by the MPEP.

Christianson teaches a method for assisting a user to query for information available from information sources attached to a network. Christianson's method comprises the steps of: selecting the one or more information sources most relevant to a user query; formatting the user query for each relevant information source according to a description of each relevant information source; transmitting the formatted query to each of the relevant information sources; extracting data fields relevant to the user query from responses returned from the relevant information sources, according to the description of the relevant information source returning each response; and presenting the relevant data fields to the user.

Applicants' claim 1, by stark contrast, provides for a method for identifying documents most relevant to a query from a collection of documents that is organized based on a set of indices, said method comprising the steps of: (a) <u>determining a query class</u> for a received query

based on **statistical information** regarding query terms of said received query **and lexical affinities** associated with permutations of said query terms, said query class associated with a routing function and a ranking function, said routing function capable of determining subsets of the collection that most likely include the most relevant documents, and said ranking function capable of sorting the documents in terms of relevancy; (b) <u>identifying a set of indices most relevant to said query</u>; (c) <u>identifying a set of documents related to said query based on said determined indices</u>, said identification performed via passing said ranking function associated with said determined query class along with said query to each search engine that manages a determined index from a collection of relevant indices; (d) <u>collecting results ranked based upon said ranking function and merging and sorting said collected results by relevancy</u>; and (e) <u>returning a subset of the highest ranked documents as the documents most relevant to the query</u>.

Applicants' independent claim 8 provides for a computer product implementing the above-method.

The Examiner, on page 3 of the Office Action of 11/24/2006, asserts that <u>column 7, line 57</u> through <u>column 8, line 20</u>, <u>column 9, lines 2-18</u>, and <u>column 14, lines 50-65</u> teach Claim 1's (and claim 8's) feature of "determining a query class for a received query based on statistical information regarding query terms of said received query and lexical affinities associated with permutations of said query terms".

Christianson's column 7, line 57 through column 8, line 20 merely teaches a "query router" that "calculates a numerical relevance rank value for each information source that

estimates the source's relevance", wherein such a calculation is "based on the concept of **conceptual classes**". Christianson further clarifies in column 8, line 11-20 that "each information source is tagged in advance with the conceptual classes for which it is relevant" and that "**mapping of a query to its conceptual classes is preferably done with a hash function**."

Although Christianson uses similar terminology (i.e., conceptual classes), it is evident from the above-citation that Christianson's "conceptual classes" does not teach or suggest the "query class" of Applicants' claim 1 and 8. By Christianson's own admission, the mapping of a query to "conceptual classes" is done via a "hash function", and **NOT** based on "statistical information regarding query terms" **AND** "lexical affinities associated with permutations of said query terms".

In fact, Applicants respectfully assert that Christianson reference in its entirety fails to teach or suggest determining such "conceptual classes" based on either "statistical information regarding query terms" **OR** "lexical affinities associated with permutations of said query terms". Applicants are unsure how the Examiner can reject independent claims 1 and 8 under 35 U.S.C. §102(b), when either of these instances (i.e., determining a query class for a received query based on statistical information OR determining a query class for a received query based on lexical affinities associated with permutations of said query terms) is not shown in a single reference, let alone showing both instances (i.e., determining a query class for a received query based on statistical information AND determining a query class for a received query based on lexical affinities associated with permutations of said query terms) in a single reference, as required by independent claims 1 and 8.

For further support, Applicants direct the attention of the Examiner to column 4, lines 31-36 (reproduced below), which provide more detail regarding the conceptual classes.

"**Groups of sources 7 having similar sorts of information are grouped into conceptual classes called information domains**. For example, one domain can be that of electronic stores for a particular product; another domain might include Internet indexes containing information on the keyword content of various World Wide Web ("WWW") pages." (emphasis added).

The above-citation clearly indicates that the "conceptual classes" of Christianson are merely a "**grouping of sources [7] having similar sorts of information**" and **CANNOT** be equated to Applicants' query class which, for a received query, is determined based on **statistical information** regarding query terms **AND lexical affinities** associated with permutations of the query terms.

Further, the Examiner's citations of column 9, lines 2-18 and column 14, lines 50-65 merely recites the step of retrieving a page in order to calculate a "relevance estimate". However, as above, there is neither an explicit nor an implicit teaching/suggestion regarding the determination of a "query class" based on statistical information regarding query terms **AND** lexical affinities associated with permutations of the query terms.

Hence, at least for the reasons set forth above, Applicants contend that Christianson fails to teach or suggest many of the features of Applicants' pending independent claims 1 and 8. Applicants respectfully request the Examiner to withdraw the rejections and respectfully assert that Applicants' pending independent claims 1 and 8 are allowable.

Applicants' independent claim 12 provides for a method for retrieving information comprising the steps of: (a) receiving a query; (b) parsing said query and generating a set of query terms; (c) <u>identifying **statistical information** regarding each of said query terms and different permutations of query terms</u>; (d) <u>identifying **lexical affinities** associated with said permutations of query terms</u>; (e) <u>classifying said query into a query category based upon results of steps c **and** d</u>; (f) identifying a set of ranking parameters associated with said query category; (g) identifying routing information associated with said query category; (h) issuing a query to a search engine by applying said identified ranking parameters and said identified routing information; and (i) receiving and rendering search results from said search engine.

Applicants' independent claim 17 provides for a computer product implementing the above-method.

The above-mentioned arguments with respect to independent claims 1 and 8 substantially apply to independent claims 12 and 17. As above, Applicants respectfully assert that Christianson reference in its entirety fails to teach or suggest determining such "conceptual classes" based on either "statistical information regarding query terms" **OR** "lexical affinities associated with permutations of said query terms". With either of these instances not shown in

the Christianson reference, Applicants are unsure how the Examiner can assert that the Christianson reference teaches the step of "classifying said query into a query category based upon results of steps c **and** d".

Hence, at least for the above-reasons, Applicants respectfully request the Examiner to withdraw the rejections and respectfully assert that Applicants' pending independent claims 12 and 17 are also allowable.

If the Examiner still feels that the Christianson reference provides for (1) determining a query class based on **statistical information** regarding query terms **AND lexical affinities** associated with permutations of the query terms (as per claims independent claims 1 and 8), or (2) classifying a query into a query category based upon identified **statistical information** regarding each of the query terms and different permutations of query terms **AND** identified **lexical affinities** associated with the permutations of query terms (as per independent claims 12 and 17), Applicants respectfully remind the Examiner that it is the duty of the Examiner to specifically point out each and every feature of a claim being rejected as per §1.104(c)(2) of Title 37 of the Code of Federal Regulations and section 707 of the M.P.E.P., which explicitly states that "the particular part relied on must be designated" and "the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified".

Furthermore, the above-mentioned arguments with respect to independent claims 1, 8, 12, and 17 substantially apply to dependent claims 2-7, 9-11, 13-16 and 18-19 as they inherit all the features of the claim from which they depend.

Hence, Applicants respectfully request the Examiner to reconsider these claims and withdraw the rejection in light of the arguments presented above.

SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicants' presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

As this response has been timely filed, no request for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided to Deposit Account No. 12-0010.

If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicants' representative at the below number.

Respectfully submitted,

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February 26, 2007